heffron transportation inc

TECHNICAL MEMORANDUM

Project: **Community Health Care – Puyallup Clinic**
111 W Main Street, Puyallup

Subject: Trip Generation and Traffic Impact Fee Estimate

Date: March 27, 2023

Author: Marni C. Heffron, P.E., P.T.O.E.

This memorandum presents the trip generation estimate for the proposed Community Health Care (CHC) Clinic in downtown Puyallup. It also presents estimates for the prior Washington State Department of Social and Human Services (DSHS) Community Service Center that previously occupied the site. Since DSHS vacated the site during the COVID-19 pandemic, trips for that prior use were derived from a detailed trip generation study of three other DSHS service centers. The traffic impact fee for the project is based on the net difference in trips between the proposed CHC and prior DSHS use.

1. Project Description

Proposed Clinic

CHC is a non-profit organization that provides a network of medical, dental, and pharmacy services throughout Pierce County with major facilities in Tacoma, Parkland, Lakewood, Spanaway, and the Key Peninsula. CHC plans to expand its network to Puyallup by converting space in two downtown buildings to clinic use. The main clinic would be located in the former Cannery Building, a building with about 27,360 square feet (sf) of space last occupied by DSHS. CHC would also convert existing storage space on the ground floor of the adjacent garage into an office and a small pharmacy. A total of 11,122 sf of "habitable space" would be created from the existing storage space. Some additional storage space located under the garage ramps but that is uninhabitable, was not included in the analysis. In total, the clinic would have a combined total of **38,482 sf**.

According to CHC's 2021 Annual Report,[1] about half of its patients are at or below the poverty level, and the majority (81%) are covered by public insurance (including Medicaid or Medicare) or are uninsured. There have been many studies that have found that lack of or inaccessibility to transportation may be associated with less health care utilization, lack of regular medical care, and missed medical appointments, particularly for those from lower economic backgrounds.[2] The proposed new clinic's location in downtown Puyallup near the Sounder Commuter Rail station and its many bus connections would provide non-automobile access options for staff and patients, many of whom may not be able to drive or be driven to the site. The trip generation estimates presented in the following sections account for the site's location and transportation attributes, where some of the trips are expected to occur by transit or walking modes.

1 Community Health Care Annual Report 2021, https://www.commhealth.org/wp-content/uploads/2021-Annual-Report.pdf.
2 Samina T. Syed, Ben S. Gerber, and Lisa K Sharp; Traveling Towards Disease: Transportation Barriers to Health Care Access, J Community Health; October 2013; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4265215/

Former DSHS Use

Prior to the COVID-19 pandemic, DSHS operated a Community Service Office at the site. This location provided in-person walk in and appointment-based social services, including programs such as child support services, referrals for housing, support for Electronic Benefits Transfer (EBT) cards, employment and work training, immigrant and refugee assistance, domestic violence support and treatments, and disability services. The Community Service Office was closed in March 2020 after the Governor's state-wide *Stay Home Stay Healthy* order. The office was permanently closed on March 31, 2021.

2. Trip Generation for Proposed CHC Clinic

Trip estimates for the CHC clinic were determined using procedures set forth in the Institute of Transportation Engineers (ITE) *Trip Generation Handbook*[3] to adjust baseline trip generation from ITE's *Trip Generation Manual*[4] to reflect local travel conditions. The generalized process, which results in trip generation estimates for all modes of travel (not just vehicle trips) consists of the following steps:

- Estimate the number of person trips for each land use by applying average vehicle occupancy factors to baseline ITE vehicle trip estimates;
- Estimate the numbers of person trips by mode of travel using the local mode of travel factors for the site; and
- Convert the person trips by vehicle into adjusted vehicle trip estimates using the local vehicle occupancy rates for the site.

The analysis steps and input assumptions are described in the following sections.

2.1. Baseline Trip Generation Factors

Baseline trip rates, trip equations, and vehicle occupancy factors are from ITE's *Trip Generation Manual.* For the proposed use, data for a Clinic (LUC 630) were applied. Table 1 summarizes the baseline PM peak hour trip equations and vehicle occupancy factors used to derive the number of person trips. Per guidance in the *Trip Generation Handbook*[5], the average trip rate was used since there were fewer than 20 data points and the R-squared value is less than 0.75. For this land use there were 11 studies for PM peak hour trips based on clinic square footage, and the R-squared value was 0.72.

Table 1. Trip Generation Metrics from Institute of Transportation Engineers

Land Use and Definition (ITE Land Use Code)	Baseline Trip Equation and Rate for PM Peak Hour Trips [a]	Baseline Vehicle Occupancy Factor (persons / vehicle)	Trips by Direction
Clinic (LU 630) – A clinic is a facility that provides limited diagnostic and outpatient care but is unable to provide prolonged in-house medical and surgical care.	**Equation:** T = 3.53(X) + 2.98 **Average Rate:** [c] 3.69 trips per 1,000 sf	1.7 [b]	30% Inbound / 70% outbound

a. *Source: Institute of Transportation Engineers (ITE)* Trip Generation Manual, *11th Edition, September 2021. T = number of vehicle trips, X = 1,000 square feet of gross floor area (sfgfa).*

b. *ITE* Trip Generation Manual, page 673.

c. *Per guidance in the ITE Trip Generation Handbook, 3rd Edition, September 2017, average rate was used since there are fewer than 20 data points and the R-squared value is less than 0.75. For this land use there are 11 studies for PM peak hour trips based on clinic square footage, and the R-squared value is 0.72.*

3 Institute of Transportation Engineers, *Trip Generation Handbook,* 3rd Edition, September 2017.
4 Institute of Transportation Engineers, *Trip Generation Manual*, 11th Edition, September 2021.
5 Institute of Transportation Engineers, *Trip Generation Handbook,* 3rd Edition, September 2017, Section 4.2.4.

2.2. Person Trips

Applying the trip generation metrics presented, the proposed clinic size with 38,482 sf would generate 241 person trips during the PM peak hour (72 entering, and 169 exiting).

2.3. Mode of Travel

Based on data for the downtown Puyallup site vicinity from the *5-Year American Community Survey (ACS) for 2012-2016*,[6] it was assumed that 17% of CHC Clinic trips would be made by non-vehicle modes. Mode-of-travel data for employees who work in downtown Puyallup show that about 6% walk or bike to work and 2% take transit. These model-of-travel rates are reasonable to apply to future CHC staff trips. That same *ACS Survey* shows that within the Puyallup market area (see Attachment A for the Census zones assumed in this analysis), residents who have household incomes below $30,000 per year (which is about the 50% area median income level) drive alone to work less than 80% of the time. Based on the split between inbound and outbound traffic, 75% of the clinic's PM peak hour trips would be made by patients. The assumed mode-of-travel rates reflect the weighted average of employee and patient trips with a combined total of 83% expected to occur by vehicle. It is noted that this rate is reasonable for CHC since it provides free transit tickets to patients and also supports medical access shuttles for seniors. Table 2 summarizes the person-trips by mode of travel.

Table 2. Person Trips by Mode of Travel for Proposed CHC Clinic

Project Component and Type of Trip by Mode	% of Trips	PM Peak Hour Trips		
		In	Out	Total
Person Trips by Passenger Vehicle	83%	59	141	200
Person Trips by Walk, Bike, Transit or Shuttle	17%	13	28	41
Total	100%	72	169	241

Source: Heffron Transportation, Inc., March 2023.

Vehicle Trips for Proposed Project

Vehicle trip estimates were determined by applying the same baseline AVO rate previously described (1.7 persons per vehicle) to the estimated person trips by vehicle. The resulting total PM peak hour vehicle trip estimates for the proposed CHC clinic are summarized in Table 3. The new clinic is estimated to generate 118 PM peak hour vehicle trips.

Table 3. Vehicle Trips for Proposed CHC Clinic

Land Use	Size	PM Peak Hour Vehicle Trips		
		In	Out	Total
Proposed Clinic	38,482 sf	35	83	118

Source: Heffron Transportation, Inc., March 2023.

[6] US Census Bureau, Census Transportation Planning Package, *5-Year American Community Survey (ACS) for 2012 -2016,* http://data5.ctpp.transportation.org/ctpp1216/Browse/browsetables.aspx, accessed November 18, 2022.

3. Trip Generation for Prior DSHS Use

DSHS vacated the existing building during the COVID-19 pandemic and many services were migrated to online channels. Limited data were available from DSHS about prior activity at the subject building; however, DSHS staff did report that there were 37,950 lobby visits by customers in 2019, an average of about 3,160 per month.

A trip generation rate for the prior DSHS use of the building was estimated according to the City of Puyallup's prescribed methodology, which requires two days of PM peak period traffic counts at three comparable sites. The methodology and study sites were coordinated with City staff.[7] The first step was to select similar DSHS Service Center sites where trips could be isolated from other adjacent uses. DSHS has ten Service Center sites in the Puget Sound region that were considered. Many of the sites share space in an office complex or shopping center that would not allow trip counts to be isolated from other generators. Other sites are much larger in scale than the former Puyallup site. Table 4 summarizes the ten sites considered and the three sites that were selected (highlighted) for the trip generation study: Tacoma, Alderwood, and Bremerton. It is noted that the Tacoma / South Pierce County Service Center is where customers from Puyallup are now assigned.

Table 4. Puget Sound Area DHSH Service Centers

Site Location	Address	Building Size (sf)	DSHS Parking Shared with Others?	Number of Parking Stalls	Number of Access Points	Access Shared with Others
Tumwater	6680 Capitol Blvd Tumwater, WA	50,544	Shared	N/A [a]	Many	Yes
Tacoma / South Pierce County	1301 E 72nd Street Tacoma, WA	30,000	Not Shared	226	3	No
Tacoma	1949 State St Tacoma, WA	153,000	Shared	N/A	Many	Yes
Alderwood	20311 52nd Ave W, Suite 100 Lynnwood, WA	67,596	Not Shared	~274	4	No
Lakewood	5712 Main St SW, Suite 100 Lakewood, WA	39,694	Shared	N/A	Many	Yes
Bremerton	4710 Auto Center Blvd Bremerton, WA	30,160	Not Shared	~173	2	No
Auburn	810 28th St NE Auburn, WA	8,658	Not Shared	~56	3	No
Chehalis	181 NE Hampe Way Chehalis, WA	155,288	Shared	N/A	Many	Yes
Federal Way	616 S 348th St Federal Way, WA	222,590	Not Shared	~98	2	No
Mount Vernon	900 E College Way #100 Mount Vernon, WA	53,510	Not Shared	~203	2	Yes

Source: Data collected by Heffron Transportation staff using aerials from Google Maps and data from county assessor records, February 2023.

a. Not available. Since parking was shared, the number of parking spaces was not counted.

[7] Meeting with CHC, Heffron Transportation, and City of Puyallup staff on February 1, 2023 and February 17, 2023.

Further research was performed to determine the amount of space occupied by DSHS at each site. The DSHS Service Centers occupy full buildings at the Tacoma and Bremerton site; however, the Alderwood Service Center only occupies the ground floor, which according to assessor records is 22,532 square feet (sf). A field visit to the site determined that Floor 2 is occupied by a Department of Children and Youth Services (DCYF) office and a Department of Vocational Services (DVS) office operating with skeleton staff. Floor 3 of the building houses a Developmental Disabilities Administration (DDA) office with a sign posted on the door that said, "*DDA Office is Currently Closed*."[8]

Traffic counts were commissioned through an independent traffic data vendor, Traffic Data Gathering. Counts at each site access point were performed from 4:00 to 6:00 P.M. on Wednesday, March 1, 2023, and Thursday, March 2, 2023 using video cameras. The Tacoma Service Center is located adjacent to Pierce Transit's 72nd Street Transit Center. To separate trips associated with the Service Center from those associated with the Transit Center, and to determine the number of DSHS trips that may have used transit, an additional camera was placed at the site to capture all persons that entered the front door of the building and to determine which of those came from the transit center (and its connecting walkway). The traffic count data sheets for all sites are attached (Attachment B). Traffic counts at the Alderwood Service Center were reduced by 5 outbound trips on each day to account for the skeleton staff that may have occupied the DCYF office on the 2nd floor of that building.

The traffic counts were compiled to determine the peak one-hour traffic volumes on each day, which are summarized in Table 5. These data were then used to calculate a weighted average trip generation rate according to the guidance in Appendix J of ITE's *Trip Generation Manual*.

Table 5. DSHS Service Center Trip Generation Counts

			Vehicle Trips in PM Peak Hour			Non-Vehicle Trips	
Site	Count Data	Size (ksf)	In	Out	Total	Peak Hour	% of All Trips
Tacoma	Wed 3/1/2023	30.000	9	73	82	18	18%
Tacoma	Thurs 3/2/2023	30.000	7	74	81	11	12%
Alderwood	Wed 3/1/2023	22.532	13	71	84	21	20%
Alderwood	Thurs 3/2/2023	22.532	14	91	105	10	9%
Bremerton	Wed 3/1/2023	30.160	1	38	39	2	5%
Bremerton	Thurs 3/2/2023	30.160	3	39	42	6	13%
Average		**27.564**	11%	89%	72.2	11.3	14%
Weighted Average PM Peak Hour Vehicle Trip Rate = 2.62 trips per 1,000 sf							

Source: Traffic counts performed by Traffic Data Gathering, and compiled by Heffron Transportation, Inc.,

As shown above, the weighted average PM peak hour vehicle trip generation rate for a DSHS Service Center was determined to be 2.62 trips per 1,000 sf. This rate accounts for an average of 14% of the trips being made by non-automobile (transit, walking, or biking) modes of travel. Because these mode-of-travel rates are likely similar to those of the prior DSHS Service Center in Puyallup, no additional mode-of-travel adjustments are required to account for non-vehicular trips.

[8] Field visit performed by Marni Heffron, March 2023.

Applying this rate to the former DSHS office, which was 27,360 sf, results in 72 PM peak hour trips. The net change in trips associated with the proposed CHC clinic is estimated at 46 PM peak hour trips, as summarized in Table 6.

Table 6. Vehicle Trips for Proposed Clinic

Land Use	Size	PM Peak Hour Vehicle Trips		
		In	Out	Total
Proposed CHC Clinic	38,482 sf	35	83	118
Former DSHS Service Center	27,360 sf	8	64	72
Net Change	**11,122 sf**	**27**	**19**	**46**

Source: Heffron Transportation, Inc., March 2023.

4. Traffic Impact Fee

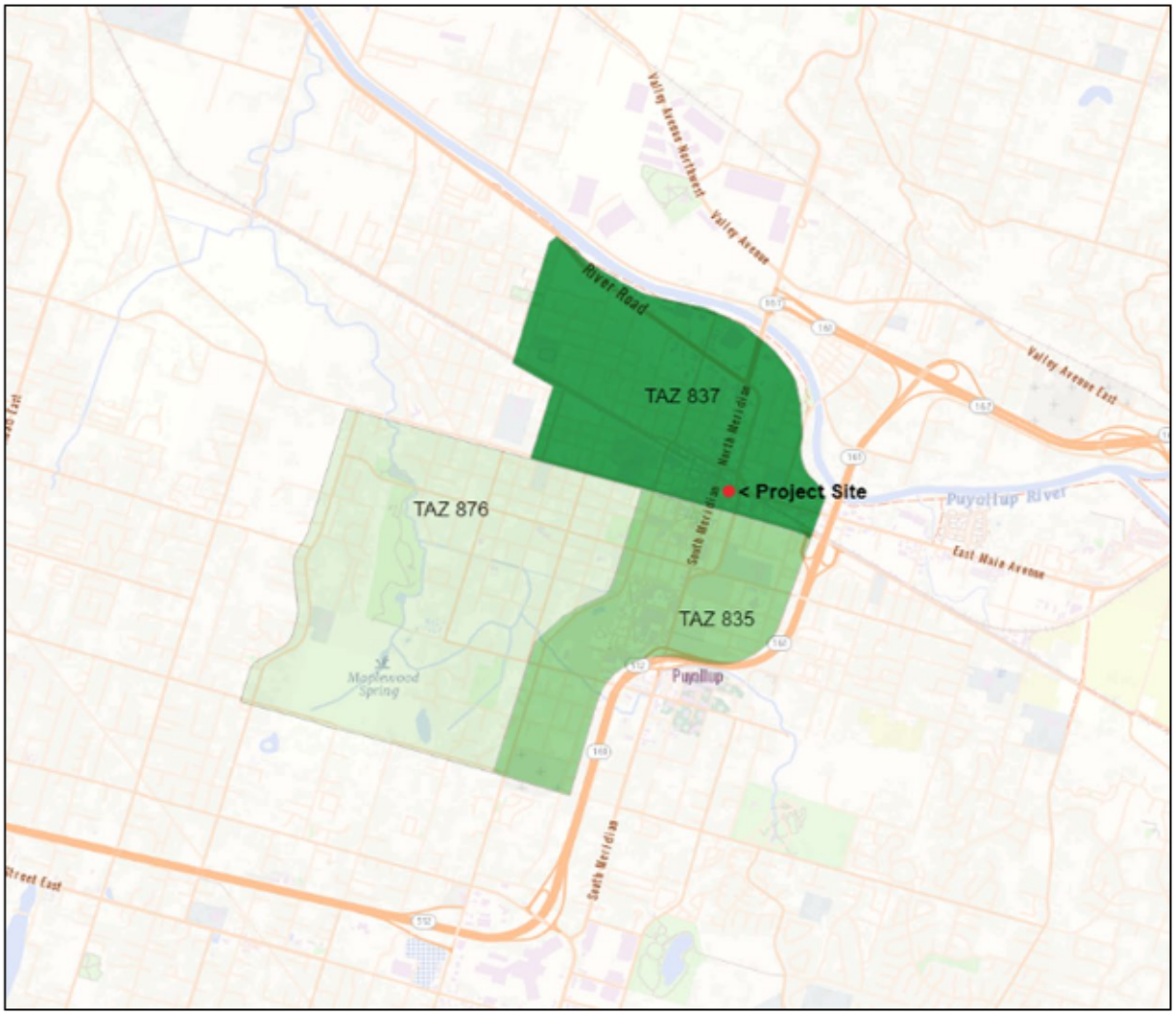
The City of Puyallup's adopted City-Wide Traffic Impact Fee is $4,500 per PM peak hour trip. Based on the net change in PM peak hour trips described above (46 trips), the project's fee would be $207,000.

MCH/tsm

Attachments: Attachment A – Transportation Analysis Zone Maps for Mode of Travel Data
Attachment B – Traffic Count Data Sheets for DSHS Service Center Sites

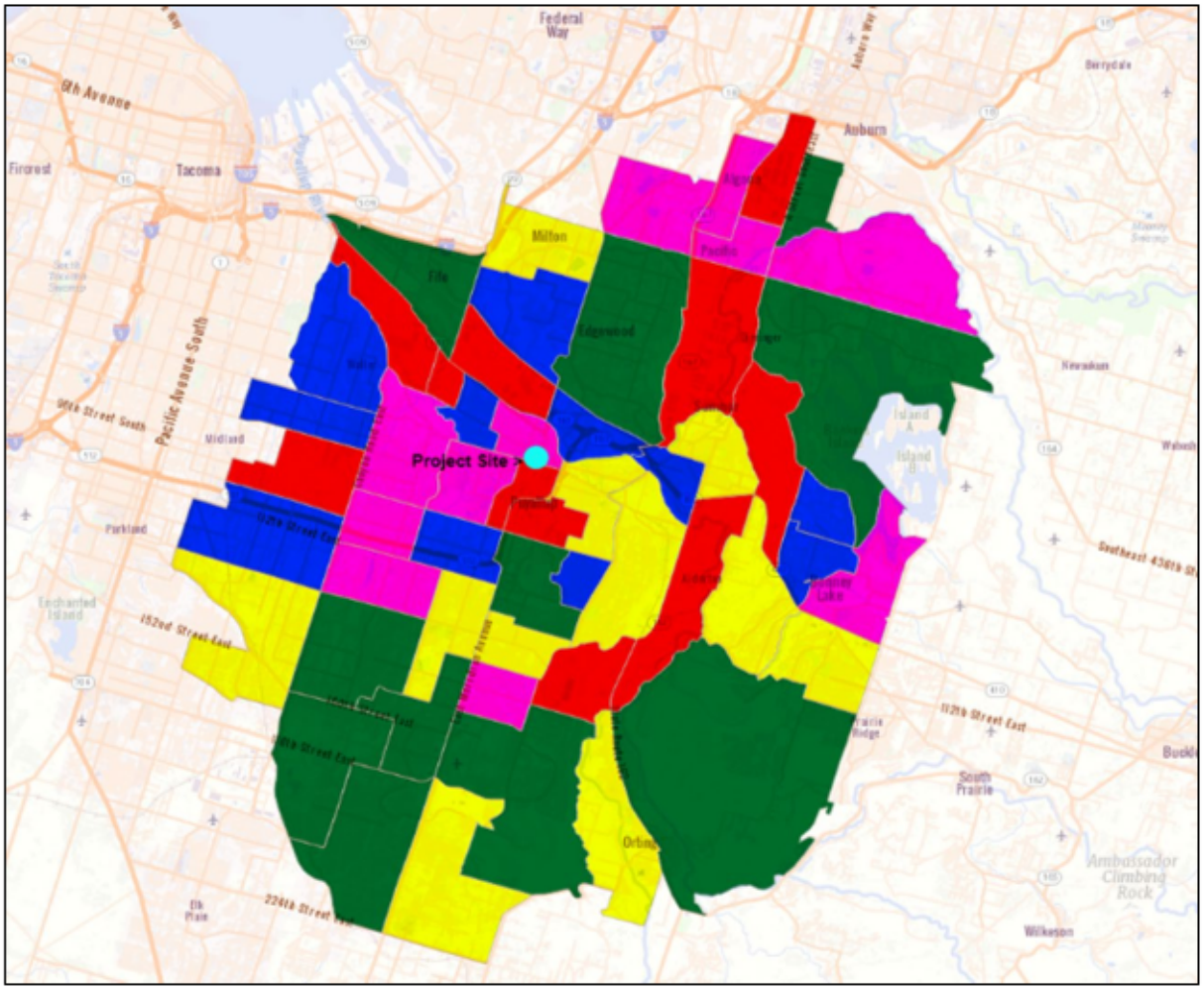
ATTACHMENT A
ZONE MAPS FOR
MODE OF TRAVEL ANALYSIS

Transportation Analysis Zones for Employee Trips



Source: U.S. Census Bureau, American Community Survey 2012-2016 Transportation Analysis Zones.

Transportation Analysis Zones for Patient Trips to Clinic



Source: U.S. Census Bureau, American Community Survey 2012-2016 Transportation Analysis Zones.

ATTACHMENT B
TRAFFIC COUNT DATA SHEETS FOR DSHS SERVICE CENTER SITES

DSHS Service Center - South Tacoma Site

Counts performed by Traffic Data Gathering (TDG)

Wednesday March 1, 2023

	Front Door (Veh Trips Only		Back Lot - East Dwy		Back Lot - West Driveway		Total All Dwys (Vehicles)		Site Related	
Time Period Ending	In	Out	In	Out	In	Out	In	Out	Pedestrians/Bicycles	Walk to Transit Center
4:15 PM	4	4	0	3	0	0	4	7	5	3
4:30 PM	2	4	0	2	0	1	2	7	5	3
4:45 PM	4	9	0	4	0	0	4	13	1	1
5:00 PM	3	3	0	8	0	0	3	11	6	0
5:15 PM	0	1	0	41	0	0	0	42	2	0
5:30 PM	0	0	0	1	0	0	0	1	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	1	0	0	0	1	0	0
Peak Hour (4:30 to 5:30 PM)							**9**	**73**	**14**	**4**

Thursday March 2, 2023

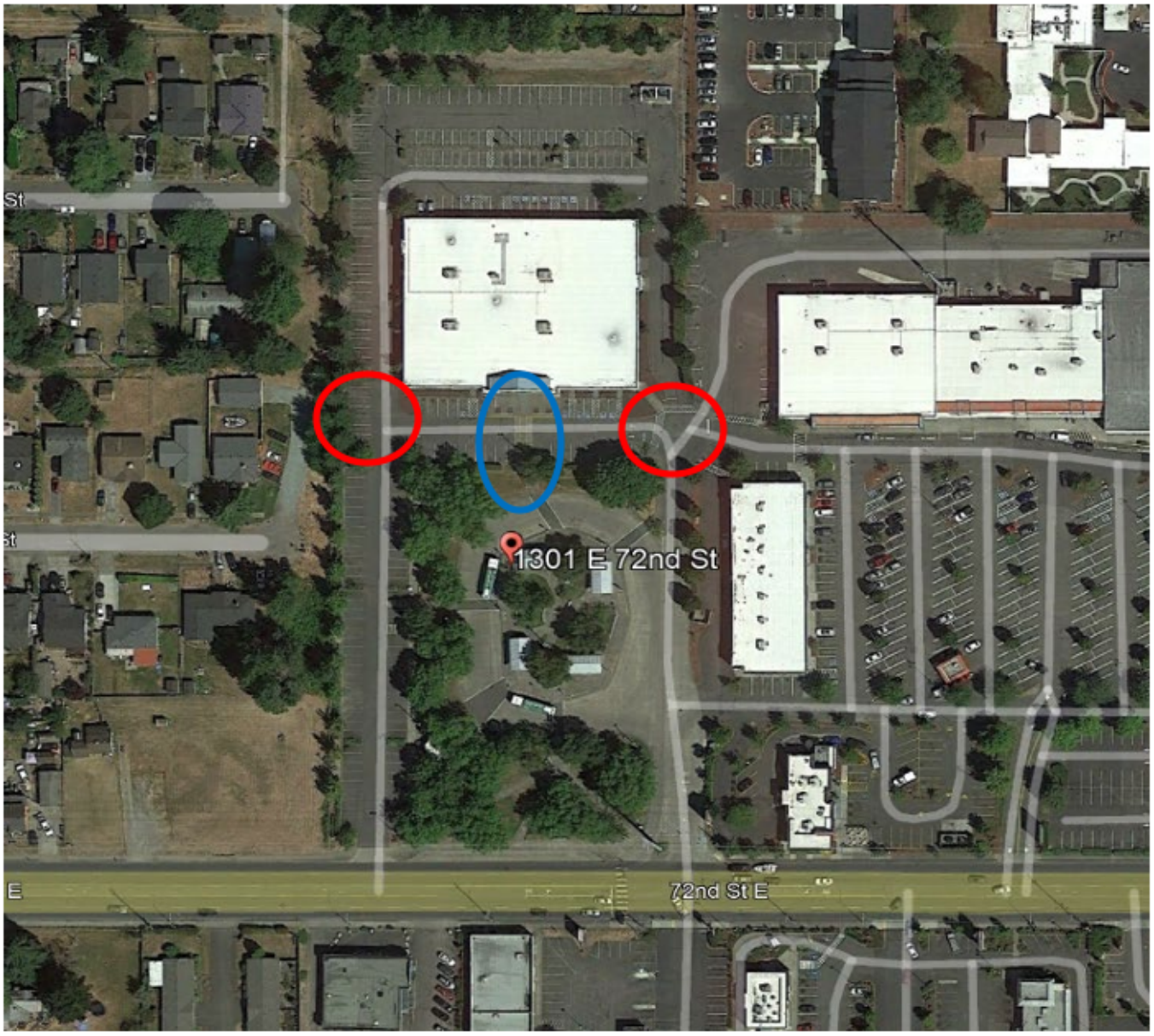
	Front Door (Veh Trips Only		Back Lot - East Dwy		Back Lot - West Driveway		Total All Dwys (Vehicles)		Site Related	
Time Period Ending	In	Out	In	Out	In	Out	In	Out	Pedestrians/Bicycles	Walk to Transit Center
4:15 PM	3	8	0	5	0	0	3	13	3	2
4:30 PM	5	6	0	2	0	0	5	8	1	0
4:45 PM	1	7	0	6	0	0	1	13	3	0
5:00 PM	1	3	0	8	0	0	1	11	4	1
5:15 PM	0	1	0	41	0	0	0	42	1	1
5:30 PM	0	0	0	1	0	0	0	1	0	0
5:45 PM	0	0	0	1	0	0	0	1	0	0
6:00 PM	0	0	0	0	0	0	0	0	1	0
Peak Hour (4:30 to 5:30 PM	**7**	**17**	**0**	**57**	**0**	**0**	**7**	**74**	**9**	**2**
Average Peak Hour							**8**	**74**	**12**	**3**

18%

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

Tacoma - 1301 E 72nd Street



DSHS Front Door Counts - Tacoma

Wednesday, March 1, 2023

Time Begin	Total Trips (multi-person groups counted as one trips)		Trips to/from Transit Center		Vehicle Trips		Total Number of Persons	
	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit
4:00 PM	6	5	2	1	4	4	8	7
4:15 PM	3	6	1	2	2	4	6	10
4:30 PM	4	10	0	1	4	9	4	12
4:45 PM	3	3	0	0	3	3	3	3
5:00 PM	0	1	0	0	0	1	0	1
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0

Thursday, March 2, 2023

Time Begin	Total Trips (multi-person groups counted as one trips)		Trips to/from Transit Center		Vehicle Trips		Total Number of Persons	
	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit
4:00 PM	3	10	0	2	3	8	3	12
4:15 PM	5	6	0	0	5	6	6	8
4:30 PM	1	7	0	0	1	7	1	8
4:45 PM	2	3	1	0	1	3	2	4
5:00 PM	0	2	0	1	0	1	0	2
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0

Average Vehicle Occupancy

Total All Trips (Both Days)	27	53	4	7	23	46	33	67

AVO = 1.25 persons per vehicle

Transit Share 14%

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Tacoma DSHS SE Corner
Lynnwood, WA

DATE OF COUNT: Wed. 3/1/2023
START OF COUNT: 4:00 PM
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 3/10/2023
DURATION OF COUNT (Hrs): 2

TIME INTERVAL ENDING AT	FROM NORTH ON North/South Driveway							FROM SOUTH ON North/South Driveway							FROM EAST ON East/West Driveway							FROM WEST ON East/West Driveway							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:15 PM	4	0	0	0	0	2	1	3	0	0	0	1	0	7	1	0	1	0	15	1	0	1	0	0	0	0	0	3	30
04:30 PM	2	1	0	0	0	2	0	3	0	0	0	3	0	8	1	1	1	0	9	3	0	0	0	0	0	0	5	2	32
04:45 PM	1	0	0	0	1	2	1	5	1	0	0	1	0	3	1	1	0	0	9	2	0	0	0	0	0	0	8	4	31
05:00 PM	3	0	0	0	0	8	0	2	0	0	0	2	0	7	0	0	0	0	13	0	0	1	0	0	0	0	2	2	34
05:15 PM	2	0	0	0	3	37	1	5	0	0	0	2	0	8	3	0	0	0	17	1	0	0	0	0	0	0	2	1	72
05:30 PM	1	0	0	0	0	1	0	0	0	1	0	2	0	6	2	0	0	0	10	0	0	0	1	0	0	0	2	0	21
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	14	0	0	0	0	0	0	0	1	1	21
06:00 PM	0	0	0	0	0	1	0	1	0	0	0	1	0	5	2	0	0	0	13	1	0	0	0	0	0	0	0	0	21

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Tacoma DSHS SE Corner
Lynnwood, WA

DATE OF COUNT: Thu. 3/2/2023
START OF COUNT: 4:00 PM
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 3/10/2023
DURATION OF COUNT (Hrs): 2

TIME INTERVAL ENDING AT	FROM NORTH ON North/South Driveway							FROM SOUTH ON North/South Driveway							FROM EAST ON East/West Driveway							FROM WEST ON East/West Driveway							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:15 PM	3	0	0	0	0	5	0	3	0	0	0	4	0	7	7	0	0	0	13	1	0	0	0	0	0	0	0	3	33
04:30 PM	1	0	0	0	0	2	0	4	0	2	0	2	0	7	1	0	0	0	7	1	0	0	0	0	0	0	3	1	23
04:45 PM	1	0	0	0	1	4	1	2	0	0	0	0	0	4	0	0	0	0	16	2	0	1	0	0	0	0	3	2	33
05:00 PM	4	0	0	0	0	8	0	0	0	0	0	1	0	5	0	0	0	0	9	1	0	1	0	0	0	0	1	2	27
05:15 PM	1	0	0	0	3	37	1	4	0	0	0	1	0	3	5	0	0	0	12	0	0	1	0	0	0	0	1	1	59
05:30 PM	0	0	0	0	0	1	0	4	0	0	0	0	0	4	0	0	0	0	6	0	0	0	0	0	0	0	2	1	14
05:45 PM	0	0	0	0	0	1	0	3	0	0	0	0	0	6	1	0	2	0	10	2	0	0	0	0	0	0	0	1	20
06:00 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	4	1	0	0	0	16	0	0	0	0	1	0	0	0	1	21

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Tacoma DSHS SW Corner
Lynnwood, WA

DATE OF COUNT: Wed. 3/1/2023
START OF COUNT: 4:00 PM
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 3/10/2023
DURATION OF COUNT (Hrs): 2

TIME INTERVAL ENDING	FROM NORTH ON North/South Driveway							FROM SOUTH ON North/South Driveway							FROM EAST ON East Driveway							FROM WEST ON							INTERVAL TOTALS
AT	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	3	0	0	0	0	0	0	0	0	0	**6**
04:30 PM	2	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	**6**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	2	0	0	0	0	0	0	0	0	0	**6**
05:00 PM	3	0	0	0	0	0	0	2	0	0	0	0	0	3	2	0	0	0	3	0	0	0	0	0	0	0	0	0	**6**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	6	0	0	0	0	0	0	0	0	0	**7**
05:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	**2**
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Tacoma DSHS SW Corner
Lynnwood, WA

DATE OF COUNT: Thu. 3/2/2023
START OF COUNT: 4:00 PM
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 3/10/2023
DURATION OF COUNT (Hrs): 2

TIME INTERVAL ENDING AT	FROM NORTH ON North/South Driveway							FROM SOUTH ON North/South Driveway							FROM EAST ON East Driveway							FROM WEST ON							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	6
04:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	5
04:45 PM	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
06:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

DSHS Service Center - Alderwood Site

Counts performed by Traffic Data Gathering (TDG)

Wednesday March 1, 2023

	52nd Dwy		254th East Dwy		254th West Driveway		Total All Dwys (Vehicles)		ds or Bikes on D	Peds to Transit
Time Period Ending	In	Out	In	Out	In	Out	In	Out		
4:15 PM	1	4	1	1	0	5	2	10	7	
4:30 PM	2	3	1	0	2	3	5	6	8	
4:45 PM	2	5	1	0	1	3	4	8	5	2
5:00 PM	3	7	0	2	2	8	5	17	5	3
5:15 PM	1	31	0	2	0	4	1	37	4	
5:30 PM	2	10	0	2	1	2	3	14	2	
5:45 PM	0	5	0	1	0	2	0	8	2	
6:00 PM	2	3	1	0	0	0	3	3	0	
Peak Hour (4:30 to 5:30 PM)							**13**	**76**	**16**	**5**
									19%	

Thursday March 2, 2023

	52nd Dwy		254th East Dwy		254th West Driveway		Total All Dwys (Vehicles)		Peds on Dwys	Peds to Transit
Time Period Ending	In	Out	In	Out	In	Out	In	Out		
4:15 PM	3	7	1	5	3	4	7	16	5	1
4:30 PM	2	3	2	4	3	5	7	12	3	
4:45 PM	1	11	0	5	4	5	5	21	5	
5:00 PM	1	6	0	2	3	6	4	14	1	
5:15 PM	1	36	0	1	1	8	2	45	4	
5:30 PM	2	10	1	2	0	4	3	16	0	
5:45 PM	2	1	0	0	0	1	2	2	0	
6:00 PM	0	1	0	1	0	2	0	4	2	
Peak Hour (4:30 to 5:30 PM)							**14**	**96**	**10**	**0**
									8%	
Average Peak Hour							**14**	**86**	**13**	**3**
									13%	

DSHS Alderwood

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Alderwood DSHS Driveway @ 52nd Avenue W
Lynnwood, WA

DATE OF COUNT: Wed. 3/1/2023
START OF COUNT: 4:00 PM
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 3/10/2023
DURATION OF COUNT (Hrs): 2

TIME INTERVAL ENDING AT	FROM NORTH ON 52nd Avenue W							FROM SOUTH ON 52nd Avenue W							FROM EAST ON Alderwood DSHS Driveway							FROM WEST ON							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:15 PM	0	1	11	0	1	133	0	0	0	5	0	0	134	0	3	0	0	0	3	0	1	0	0	0	0	0	0	0	272
04:30 PM	0	0	21	0	1	136	0	0	0	6	0	0	102	1	3	0	0	0	1	0	2	0	0	0	0	0	0	0	243
04:45 PM	0	0	17	0	1	121	0	0	0	3	0	0	124	1	3	0	0	0	2	0	3	0	0	0	0	0	0	0	252
05:00 PM	0	0	13	0	3	133	0	0	0	3	0	0	116	0	0	0	0	0	3	0	4	0	0	0	0	0	0	0	259
05:15 PM	0	0	14	0	0	132	0	0	1	1	0	0	123	1	1	0	0	0	4	0	27	0	0	0	0	0	0	0	287
05:30 PM	0	0	9	0	2	136	0	0	0	4	0	0	119	0	2	0	0	0	2	0	8	0	0	0	0	0	0	0	267
05:45 PM	0	0	5	0	0	129	0	0	0	4	0	0	111	0	2	0	0	0	1	0	4	0	0	0	0	0	0	0	245
06:00 PM	0	0	4	0	2	123	0	0	0	2	0	0	89	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	217

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Alderwood DSHS Driveway @ 52nd Avenue W
Lynnwood, WA

DATE OF COUNT: Thu. 3/2/2023
START OF COUNT: 4:00 PM
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 3/10/2023
DURATION OF COUNT (Hrs): 2

TIME INTERVAL ENDING AT	FROM NORTH ON 52nd Avenue W							FROM SOUTH ON 52nd Avenue W							FROM EAST ON Alderwood DSHS Driveway							FROM WEST ON							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:15 PM	0	0	9	0	3	134	0	0	0	3	0	0	134	0	1	0	0	0	2	0	5	0	0	0	0	0	0	0	278
04:30 PM	0	1	20	0	1	125	0	0	0	5	0	0	135	1	2	0	0	0	1	0	2	0	0	0	0	0	0	0	265
04:45 PM	0	0	18	0	1	140	0	0	0	2	0	0	122	0	2	0	0	0	5	0	6	0	0	0	0	0	0	0	274
05:00 PM	0	0	16	0	0	147	0	0	0	3	0	0	127	1	1	0	0	0	4	0	2	0	0	0	0	0	0	0	281
05:15 PM	0	0	10	0	1	139	0	0	0	3	0	0	125	0	3	0	0	0	10	0	26	0	0	0	0	0	0	0	301
05:30 PM	0	0	5	0	2	134	0	0	0	4	0	0	148	0	0	0	0	0	1	0	9	0	0	0	0	0	0	0	294
05:45 PM	0	0	5	0	1	118	0	0	1	2	0	0	120	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	241
06:00 PM	0	0	5	0	0	98	0	0	0	2	0	0	142	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	241

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Alderwood DSHS East Driveway @ 254th Street SW
Lynnwood, WA

DATE OF COUNT: Wed. 3/1/2023
START OF COUNT: 4:00 PM
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 3/10/2023
DURATION OF COUNT (Hrs): 2

TIME INTERVAL ENDING AT	FROM NORTH ON Alderwood DSHS East Driveway							FROM SOUTH ON							FROM EAST ON 254th Street SW							FROM WEST ON 254th Street SW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0	1	6	0	11
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	7	0	0	0	16	0	1	16	0	24
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	11	0	0	0	12	0	1	13	0	25
05:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	12	0	0	0	10	0	0	10	0	24
05:15 PM	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	12	0	0	0	3	0	0	3	0	17
05:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	11	0	0	0	7	0	0	7	0	20
05:45 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	1	0	6
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5	0	0	0	2	0	1	1	0	7

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Alderwood DSHS East Driveway @ 254th Street SW
Lynnwood, WA

DATE OF COUNT: Thu. 3/2/2023
START OF COUNT: 4:00 PM
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 3/10/2023
DURATION OF COUNT (Hrs): 2

TIME INTERVAL ENDING	FROM NORTH ON Alderwood DSHS East Driveway							FROM SOUTH ON							FROM EAST ON 254th Street SW							FROM WEST ON 254th Street SW							INTERVAL TOTALS
AT	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:15 PM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	6	0	1	7	0	15
04:30 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	11	0	1	12	0	21
04:45 PM	2	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0	0	10	0	0	0	12	0	0	12	0	27
05:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	12	0	0	0	11	1	0	11	0	26
05:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	7	0	0	7	0	24
05:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	17	0	0	0	3	0	1	3	0	23
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
06:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	1	0	4

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Alderwood DSHS West Driveway @ 254th Street SW
Lynnwood, WA

DATE OF COUNT: Wed. 3/1/2023
START OF COUNT: 4:00 PM
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 3/10/2023
DURATION OF COUNT (Hrs): 2

TIME INTERVAL ENDING AT	FROM NORTH ON Alderwood DSHS West Driveway							FROM SOUTH ON							FROM EAST ON 254th Street SW							FROM WEST ON 254th Street SW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:15 PM	4	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	0	7	0	16
04:30 PM	5	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	7	0	0	0	17	0	2	18	0	30
04:45 PM	2	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	2	0	0	11	0	0	0	11	0	1	13	0	28
05:00 PM	5	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	2	0	0	14	0	0	0	10	0	2	10	0	34
05:15 PM	2	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0	14	0	0	0	5	0	0	5	0	23
05:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	13	0	0	0	5	0	1	5	0	21
05:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	1	0	7
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5	0	0	0	1	0	0	1	0	6

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Alderwood DSHS West Driveway @ 254th Street SW
Lynnwood, WA

DATE OF COUNT: Wed. 3/1/2023
START OF COUNT: 4:00 PM
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 3/10/2023
DURATION OF COUNT (Hrs): 2

TIME INTERVAL ENDING AT	FROM NORTH ON Alderwood DSHS West Driveway							FROM SOUTH ON							FROM EAST ON 254th Street SW							FROM WEST ON 254th Street SW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:15 PM	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	1	1	0	7	0	0	0	6	0	3	8	0	23
04:30 PM	1	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	11	0	3	13	0	28
04:45 PM	1	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0	0	13	1	0	0	13	0	3	13	0	35
05:00 PM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0	0	15	1	0	0	10	1	2	10	0	35
05:15 PM	1	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	7	0	1	7	0	33
05:30 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	2	0	0	19	0	0	0	3	1	0	4	0	28
05:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	5
06:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	1	0	1	0	7

DSHS Service Center - Bremerton Site

Counts performed by Traffic Data Gathering (TDG)

Wednesday March 1, 2023

	Total All Dwys (Vehicles)		Peds
Time Period Ending	In	Out	
4:15 PM	1	5	0
4:30 PM	1	3	2
4:45 PM	3	4	0
5:00 PM	0	5	0
5:15 PM	0	22	1
5:30 PM	0	3	1
5:45 PM	1	8	0
6:00 PM	0	0	0
Peak Hour (4:45 to 5:45 PM)	**1**	**38**	**2**

Thursday March 2, 2023

	Total All Dwys (Vehicles)		
Time Period Ending	In	Out	0
4:15 PM	2	8	2
4:30 PM	1	4	0
4:45 PM	1	8	4
5:00 PM	0	7	0
5:15 PM	2	20	2
5:30 PM	1	4	0
5:45 PM	0	5	0
6:00 PM	0	1	0
Peak Hour (4:30 to 5:30 PM)	**4**	**39**	**6**
Average Peak Hour	**3**	**39**	**4**

DSHS Bremerton

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Bremerton DSHS Driveway @ Auto Center Boulevard
Lynnwood, WA

DATE OF COUNT: Wed. 3/1/2023
START OF COUNT: 4:00 PM
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 3/10/2023
DURATION OF COUNT (Hrs): 2

TIME INTERVAL ENDING AT	FROM NORTH ON Auto Center Boulevard							FROM SOUTH ON Auto Center Boulevard							FROM EAST ON Bremerton DSHS Driveway							FROM WEST ON							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:15 PM	0	0	2	0	1	80	0	0	0	0	0	0	32	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	117
04:30 PM	0	0	2	0	0	90	0	0	0	2	0	0	33	1	2	0	0	0	2	0	1	0	0	0	0	0	0	0	126
04:45 PM	0	0	2	0	1	71	0	0	0	1	0	0	32	2	0	0	0	0	0	0	4	0	0	0	0	0	0	0	107
05:00 PM	0	0	0	0	0	53	0	0	0	2	0	0	20	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	78
05:15 PM	0	0	1	0	0	62	0	0	0	0	0	0	28	0	1	0	0	0	12	0	10	0	0	0	0	0	0	0	112
05:30 PM	0	0	0	0	0	44	0	0	0	0	0	0	28	0	1	0	0	0	2	0	1	0	0	0	0	0	0	0	75
05:45 PM	0	0	0	0	1	52	0	0	0	0	0	0	24	0	0	0	0	0	7	0	1	0	0	0	0	0	0	0	84
06:00 PM	0	0	1	0	0	32	0	0	0	1	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Bremerton DSHS Driveway @ Auto Center Boulevard
Lynnwood, WA

DATE OF COUNT: Thu. 3/2/2023
START OF COUNT: 4:00 PM
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 3/10/2023
DURATION OF COUNT (Hrs): 2

TIME INTERVAL ENDING AT	FROM NORTH ON Auto Center Boulevard							FROM SOUTH ON Auto Center Boulevard							FROM EAST ON Bremerton DSHS Driveway							FROM WEST ON							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:15 PM	0	0	5	0	2	114	0	0	0	0	0	0	44	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	166
04:30 PM	0	0	3	0	1	108	0	0	0	0	0	0	21	0	2	0	0	0	2	0	2	0	0	0	0	0	0	0	133
04:45 PM	0	0	3	0	0	131	0	0	0	0	0	0	32	1	0	0	0	0	3	0	5	0	0	0	0	0	0	0	171
05:00 PM	0	0	3	0	0	106	0	0	0	0	0	0	26	0	4	0	1	0	3	0	4	0	0	0	0	0	0	0	139
05:15 PM	0	0	1	0	1	72	0	0	0	0	0	0	24	1	0	0	0	0	9	0	11	0	0	0	0	0	0	0	116
05:30 PM	0	0	1	0	1	71	0	0	0	0	0	0	20	0	2	0	0	0	3	0	1	0	0	0	0	0	0	0	95
05:45 PM	0	0	0	0	0	42	0	0	0	0	0	0	17	0	0	0	0	0	4	0	1	0	0	0	0	0	0	0	64
06:00 PM	0	0	0	0	0	24	0	0	0	0	0	0	26	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	51